



Refit DX Systems for Unstable Occupancy & Space Redesign

Did you know since the start of Rawal Devices, Inc., some of our first applications of the APR Control include resizing air conditioning systems for retail space, eliminating the need to replace existing equipment? This allows existing equipment to be reused in lower load environments, yet continue to provide the operator the full system capacity they might need for high load periods.

The APR Control will size the system to match changing space and load requirements, and maintain the effective dehumidification benefits of the system to match ever changing loads.

- The APR Control offers cost containment for adapting systems to changing load conditions
- Changes in the economy are driving reduced square footage demand and the desire to modify leases
- Shopping malls and office space are undergoing major shifts in usage including traffic patterns and occupancy
- Technological advances in other facility design elements (such as LED lighting adoption) will influence air conditioning system considerations

As we often emphasize, the APR Control is a cost effective solution for improved system performance. In the current economic climate, the flexibility the APR Control provides will yield long term benefits both when incorporated during the design process and when installed as a retrofit.

As retailers specifically (and other industries generally) reduce their current demand for space, all companies are looking to reduce their cost structures. Existing HVAC systems can be inexpensively refitted to accommodate changing space demands.

Examples:

Vacancies at U.S. regional malls rose to 8 percent in the fourth quarter of 2014 from 7.9 percent a year earlier, partly because of Sears Holdings Corp. store closures, according to Reis, Inc. (Louis, 2015). Retailers and restaurateurs said last year they planned to close 5,483 locations, more than double the 2,592 in 2013, which was a record low, according to a report by the International Council of



Shopping Centers and PNC Financial Services Group Inc. Inc. (Louis, 2015). Bankruptcy by retail apparel chains Wet Seal, Inc. and Cache, and financial difficulties experienced by RadioShack have lead to reduced occupancy across the US. As a result of these changes in space usage, the ability to cost effectively modulate an AC system's capacity, while eliminating the substantial capital expense associated with changing the entire system, has an added urgency.

The APR Control can offer the owner of all types of air conditioning systems the ability to contain costs through capacity modulation. The APR Control will size the system to match new space and load requirements, and maintain the effective dehumidification benefits of the system to match the ever changing loads.

Another upcoming change in the retail and office environment is the potential adoption of LED lighting. LED lighting uses less energy and generates considerably less heat. Consequently, LED lighting will cause a considerable reduction in the core portion of many load calculations for cooling capacity namely: lighting. As LED lighting is more widely used, its impact on the cooling and comfort conditioning will become more apparent as will the need for load modulation (since the systems were originally designed for the higher lighting load).

If you or your customers' are experiencing cycling conditions due to changing space and load requirements, please don't hesitate to call us at 800-727-6447 or email at sales@rawal.com



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Louis, B. (2015, March 26). *Empty Stores Haunt Landlords as More Retailers Plan Cuts*. Retrieved August 6, 2015, from Bloomberg: <http://www.bloomberg.com/news/articles/2015-03-26/empty-stores-haunt-landlords-as-more-retailers-plan-cuts>